

187-131 575-35
N89-28193 1135 ONLY
P1

CALIBRATION SOURCE MAINTENANCE,
CHARACTERIZATION AND DEVELOPMENT

by

J. T. McLean (673)

The Standards and Calibration Office maintains visible and near infrared calibration sources for the use of various GSFC organizations instrument calibration needs and related field activities. These are large aperture spherical and hemispherical integrating sources designed to provide a spatially uniform absolute spectral radiance with a well-defined angular uniformity characteristic.

A brief physical description of both the hemisphere and the 6-foot sphere is included in section on Radiance Standards. In essence, the calibration and characterization efforts involve monitoring and documenting the stability and the absolute radiance of these calibration sources. These sources are recalibrated by Code 673 personnel on a regular basis to both document any changes that might occur in the output of the sources and to provide the most up-to-date calibration data for the source users. Our efforts included comparing our calibration numbers with those of a commercial calibration laboratory that we engage to do independent calibrations. However, the most recent calibrations done by the independent laboratory and those done by GSFC personnel show a rather large discrepancy (10 to 15 percent). Efforts are underway to resolve these differences.